

Mobile Phones, a Virtue or a Bomb for Tanzanian Secondary Students?

Jovitha Lazaro Mayega

Dar es Salaam University College of Education

Email: mayegaj@gmail.com

Abstract: *This study investigated the position of the use of mobile phones in secondary schools in Tanzania. It examined perceptions of secondary school teachers and students on the importance of students' use of mobile phones as among the learning resources in classroom and the reasons associated with the prohibition of mobile phones in secondary schools in Tanzania. A total of 60 participants were engaged, 40 secondary school students and 20 secondary school teachers all from two secondary schools in Ilala municipality, Dar es Salaam region. Data were collected using open-ended questionnaires, focus group discussions, semi-structured interviews and documentary review. Through inductive data analysis, it was revealed that participants had varied responses regarding the importance of students' use of mobile phones, and the reasons associated with their prohibitions in secondary schools in Tanzania. Teachers had a view that mobile phones would facilitate self-directed learning among learners while the position of the majority of students was that mobile phones would contribute to in-depth learning in various subjects. The study concluded that the government of Tanzania should involve key stakeholders in sharing experiences in establishing mobile phones monitoring software, rules and policies regarding the suitability or faults of various decisions related to educational matters including the use of mobile phones in classroom learning.*

Keywords: Mobile phones, information and communication technology, competence-based instruction.

Introduction

The integration of information and communication technology [ICT] in education has become one of the attractive and exciting enterprises in both developing and developed countries. Most of the countries are updating their education systems so as to achieve the desired and survival outcomes. One of the popular updates in the 21st century is the use of modern technologies including smart and cell phones in teaching and learning process (Oller, 2012; Goundar, 2011). The use of mobile phones is acknowledged in various researches (Oller, 2012; Grimus, Ebner & Holzinger, 2010) as indispensable for learning as they can combine and integrate text, audio and video with interaction amongst learners in varied settings such as classroom, home and on the bus (Kafyulilo, 2014; Chambo,

Nkansah-Gyekye & Laizer 2013). In the competence-based instruction [CBI] setting for example, Njoku (2015) asserts that mobile phones technologies support students' learning since learners use them to search materials essential for learning and entertainment (Tiba, 2018). Again, these devices have been declared to be potential for the students who live in remote locations where there are few schools, teachers, electricity and libraries (Ally, 2009). In particular, the utilization of mobile phone in learning has attracted teenagers' learning as it simplifies their access to various information that are in the form of news, publications, photos and videos (Baron, 2010; Hartnell-Young & Heym, 2008). Bugger (2010) share as well that student appreciate the use of mobile phones as they can help them keep in touch with their families, friends and teachers and they form a base of security. During emergencies parents use it as monitoring devices to their children and teachers use mobile phones to communicate important message about their students to parents. Wong (2016) adds that the use of mobile phones in teaching and learning provide comfortable opportunities for students to answer the questions but also, for the teacher to track the answers with no extra efforts.

While there have been arguments by researchers on positive outcomes in learning through mobile phones, there are also opposing views from some scholars studies asserting the demerits of their use in the learning settings. Mehdipour and Zerehkafi (2013) and Irina (2012) exemplify that most of students primarily use mobile phone to engage in inappropriate behaviours such as cheating in learning, gossiping, harassment and cyber-bullying. Further, Irina (2012) share as well that mobile phones affect students in terms of linguistic skills development as they take too much time texting which involves a neglect of some spelling and punctuation marks. This in turn brings chaos, disturbance and mental incapacitation to students but also in their syntax and pedagogy (Krithika & Vasantha, 2013; Irina, 2012).

Mobile phones have been popular among users in recent years around the world. The use of mobile phones in learning started between 1950's and 1990's in Europe before it spread to other parts of the world when it went beyond its traditional communication role to sharing information, business matters and to support teaching and learning process (Angello, 2015; Msuya, 2015; Hansson & Jobe, 2014; Aoki & Downes, 2013; Mehdipour & Zerehkafi, 2013; Mtega et al., 2012; Gounder, 2011; Baron, 2010; Hare, 2007; Srivastava, 2004). Throughout this history, mobile phones have confirmed to have potentiality in the provision of education and have transformed national education system in different parts of the world (UNESCO, 2012).

Many educational institutions have fast switched to using mobile phones because of its attractive and easy means to communicate and gain constant

access of information for teaching and learning (Gounder, 2011; Mehdipour & Zerehkafi, 2013). Its popularity has increased as is a device that is easy to carry, flexible, free or of low cost applications, and suitable for learning at any time and place as compared to laptops and note pads (Kafyulilo, 2014; Gounder, 2011; Dede & Wirth, 2009). As a pedagogical resources for teaching and learning processes, mobile phones make students confident, creative and productive (Ferry, 2009). Teachers incorporate mobile phone pedagogies such as mobile playing, digital games, and learning with robots in their daily practices so as to engage metacognitive activities of learners (Reena & Sora, 2013). However, in Texas and South Africa for example, teachers' limited use mobile phones resulting from inadequate access to equipment, connectivity, inability to troubleshoot minor technology problem, absence of training in learning activities and limited technological resources (Tiba, 2018; Davidson, Richardson & Jones, 2014).

In Tanzania the potentiality of mobile phones in classroom instructions started with the ICT policy that allowed for the integration of ICT in education system since 2002 (Ministry of Education and Vocational Training [MoEVT], 2007; Hare, 2007). Kihwele and Bali (2013) point out that this was the time that children of Tanzania were able to interact with the vast resource materials to facilitate learning while seeing the world in their classrooms (Dede & Wirth, 2009). The policy that allowed the use of mobile phones in the classroom provided a chance to even students from low income families and marginalized groups to see the world in the classroom (Chambo et al., 2013; Mehdipour & Zerehkafi, 2013).

Despite the common knowledge of the potentials of mobile phones in teaching and learning, the use of mobile phones especially in public secondary schools in Tanzania is strictly prohibited and teachers strongly ensure students do not come with and use them in the classroom since they waste time in chatting (Muhanga, 2017; Msuya, 2015; Kihwele & Bali, 2013). However, mobile phones foster effective learning, like supporting mathematical calculations and flexibility (Dede & Wirth, 2009; Gounder, 2011).

This paper reflects the position that secondary schools in Tanzania hold so far to ban the use of mobile phones in schools and classrooms. The paper seeks to investigate the position of mobile phones in Tanzania secondary schools with its particular contribution in facilitating competence-based instructions [CBI]. Specifically, the study aimed at examining perceptions of secondary school stakeholders on the use of mobile phone in facilitating quality teaching and learning practices. The paper establishes challenges associated with the prohibition of mobile phone in secondary schools in Tanzania that students encounter as they try to access education materials, communicate with parents and friends while in school. The paper argues

that mobile phones in schools should not be seen as a sin and a distracter to learning; it should also be seen as a tool for learning, just like other modern technologies such as ultra-books, e-readers, tablets, iPod, net books, computers, and a classroom projector. It is, thus, time we acknowledge the potentiality of mobile phones and allow our students to see the world on their hands, just like their counterparts in the developed world in order to narrow the digital gap that we are creating with our own hands.

Materials and Methods

In fulfilling the purpose of this study, the researcher engaged a population of secondary school teachers and students of whom 20 (10 per each school) were secondary school teachers and 40 (20 per each school) were students found in two secondary schools. Students were randomly selected in which pieces of cards written MOBILE PHONE and LAPTOP were inserted in a box with the assistance of academic master. Then the students were asked to pick a piece of card. Those who picked MOBILE PHONE were involved in the study. Secondary school teachers were conveniently sampled with the assistance of the head of school. Study participants were essentially involved in the study as their insights can help in smooth use of the mobile phones in education and overcome the limitations and challenges of teaching and learning resources. The conveniently and randomly procedures employed to engage participants with equal opportunity of being selected in the study.

In depth interviews and open ended questionnaire were used to collect data from the secondary school teachers while four focus group discussions with a maximum of 10 students per each group were administered. Further, the study used documentary analysis for generating background information that probably, were not noted by other methods of data collection. The use of multiple data collection strategies were used so as to ensure credibility, transferability, and dependability of the study. The study also, considered informants consent and willingness of participants to be involved for data collections. Respect of anonymity and confidentiality of participants were ensured through the use of alphabetical letters. After data collection they were analyzed by organizing themes and subthemes.

Results

Perceptions on the Use of Mobile Phones in CBI

The study sought to investigate the perceptions of secondary school teachers and students on the use of mobile phones in CBI. Results indicated that majority of secondary school teachers (17) negatively perceived the usage of mobile phone in CBI. Few of teachers (3) positively held views on the potentiality of using mobile phone in CBI. Teachers held negative perceptions with the usage of mobile phones insisting that students would

instead of using them in searching materials and genuine information for their learning, they would engage in downloading culturally-inappropriate materials. Pornography, chatting and playing games were mentioned to be preferred by students indicating that they could move students' attention out of academic learning during classroom session.

Also, teachers viewed that the use of mobile phones in learning will negatively affect students in terms of language usage especially, in punctuation marks, word formation and syntax. One teacher pointed out as follows:

You know students are chatting by using words such as g9t instead of good night, clac instead of class, xaxa instead of sasa meaning (now), ko instead of kwahiyo (therefore), ccta instead of sister, info. instead of information etc. This habit slowly affects students' minds which in turn develop inappropriate language usage (Interview, D)

From teachers' views, introducing mobile phones as a learning device and resource in school is considered as being inappropriate in facilitating positive learning practices.

On the side of teachers who held positive perception in the use of mobile phones in CBI, they argued that mobile phones could facilitate self learning among learners. They explained that through mobile phones students would have access to materials before and after the class session. Access to soft copy materials by the students would give them time to discuss and control their learning at school or home. One of the teachers elaborated that:

Use of mobile phones is more economical than laptops or desktop computers in teaching and learning process which would enable students and teachers have wide opportunity to facilitate preparation and learning at any place and time (Interview, C)

Looking at the teacher's arguments, one could learn that though few teachers hold positive perceptions towards the use of mobile phones in teaching and learning, integration of technology means a lot including use of mobile phones. Analysis of the data collected through FGDs with students indicated as well that mobile phones would contribute to in-depth learning of various subjects' matters (see Figure 1).

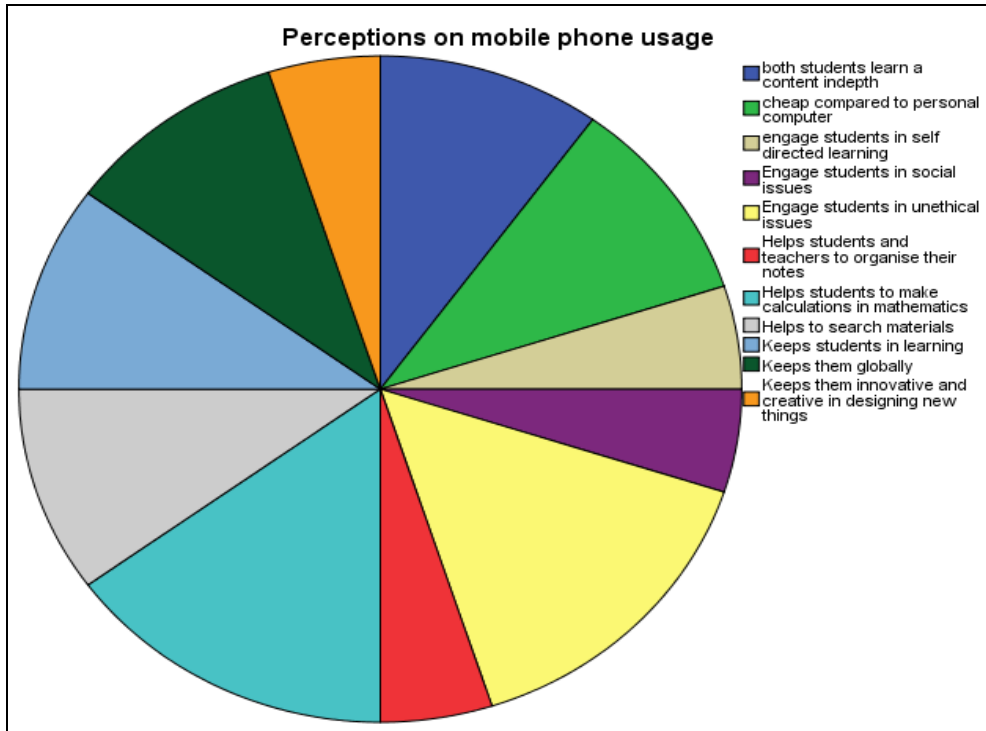


Figure 1: Students perceptions on mobile phone usage in CBI

Source: Field data

The figure illustrates that students viewed the usage of mobile phones in CBI as a useful resources. They viewed that with mobile phones usage students and teachers would offer an opportunity to search for various contents related to their subjects and combinations. Again, mobile phones had to be used in teaching and learning process as students can be self-directed in learning globally as they would be informed of the experiences and practices of the same in different parts of the world. In addition they viewed mobile phone as a device for facilitating execution of some mathematical operations.

Students shared as well that mobile phones are cheapest device compared to personal computers. In different FGDs, students were quoted arguing:

Mobile phone is cheap compared to other electronic devices such as laptops. The government should allow the use of mobile phones in learning, as our parents can afford to buy it (FGD, 4).

If I had an opportunity to make decisions for this nation, I would allow school (teachers and students) to use mobile phones in teaching and learning as it reduce costs on

construction of libraries, employing librarians and purchasing materials like books (FGD, 1).

The quotes presented here provide a lesson that students perceived mobile phones as useful in facilitating learning particularly through CBI.

Other students perceived mobile phones as a destructive device to students. They argued that the use of mobile phones by students would expose students to unwanted and undesirable behaviours as some would instead of concentrating with academic matters tend to access unethical contents particularly those related to sexuality and drug abuse. Moreover, mobile phones in CBI would not make its purpose achieved as students can tend to engage most of their time chatting social matters in social groups such as WhatsApp, Twitter, Facebook, LinkedIn, YouTube, Blogs and Instagram which in turn would lower their concentrations in academics.

The researcher reviewed government documents on the use of mobile phones in Tanzanian secondary schools. Documentary analysis revealed that the Education and Training Policy [ETP] of (2014) emphasizes on the use of ICT devices in facilitating teaching and learning in general. Again, the Ministry of Communication and Transport [MoCT] (2003) and the Ministry of Works, Transport and Communication [MoWTC] (2016) acknowledge on the effectiveness of ICT devices in facilitating delivering of education contents. In the analysis of the secondary school curriculum of (2007) it admits in the optimization of the use of radio broadcasts for online contents, computers, printing and photocopying machines, scanners, internet connectivity and SMS-enabled interactive television programmes. Mobile phones have been recognized by the MoWTC for being used in monetary services such as M-Pesa, TigoPesa, Airtel money and Halopesa only.

Reasons for Mobile Phone Prohibition in Secondary Schools

The study explored the reasons for the prohibition of mobile phones in secondary schools in Tanzania. Findings showed that one of the main for banning mobile phones in schools is the fact that students were misusing the phones by engaging more into it than academics. They pointed out some bad behaviours such as cheating, early pregnancy, absenteeism, engaging in drug abuse and joining social networking groups seemed to increase among students.

Analysis of data collected through FGDs with students revealed that the government prohibited the use of mobile phones in secondary schools probably, because students were bringing confusion, unrest and troubles among students themselves, students and teachers, students and their parents, students with their teachers and parents and to the community at large. They had the view that with the use of mobile phones a large number

of students were engaging in pornography, intimate relationships, gossiping, play games and cheating instead of concentrating in their school based learning. This in turn would bring students, teachers, parents and the government to blame to each other as students would be unethical, corrupt and immoral. Students held the views that:

Last year in a nearby school I heard two students who were suspended because they were caught with mobile phones during classroom session chatting with their fellow students about football match (FGD, 2).

In my street there is a secondary school girl who left the school because she had pregnancy caused by a man who bought the girl a smart phone which facilitated communication when she was outside their home place. Without a phone a girl could have not fallen into that trouble as her parents are strict into good conducts of their sons and daughters (FGD, 4).

The views by students would make someone deduce that mobile phones cause demerits to school students and affects the CBI because of their unfruitful academic engagements such as chatting with friends and engage in inappropriate behaviours.

Discussion

In light of the research questions the study revealed that secondary school teachers and students held varied perceptions regarding the mobile phones usage in teaching and learning process. The findings reveal that majority of teachers were against the use of mobile phones while students were in favour of using mobile phones in CBI. These findings seem to concur with those of Chambo et al (2013) who found that majority of the surveyed students and teachers have access to mobile phones though policy frameworks and school regulations prohibit the use of mobile phones at school premises in Tanzania secondary schools. Moreover, it concurs with a study by Msuya (2015) which revealed that teachers from private and public schools were against in allowing their students to carry mobile phones in the classroom although these students already had owned mobile phones and had an access and in favour to mobile phones (Gibbons, Galloway, Mollel, Mgoma, Pima & Deogratias, 2017; Kafyulilo, 2014).

The findings also, concur with the study conducted by Buchegger (2010) which found that mobile phones were forbidden as they constitute a nuisance in terms of ringtones, talking, cheating, taking and publishing photos and videos and conflicts among students, teachers, parents and school directors too.

Again, the study findings concur with those revealed by Muhanga (2017) that mobile devices impacted students' academic performance in a sense that students wasted time in chatting, engaged on sexual affairs and their moral values were destructed.

Conclusion and Recommendations

Based on the varied findings revealed from students and teachers perceptions regarding mobile phones usage in CBI yet, evidences from literatures indicate that mobile phone technologies have potential to provide new learning experiences such as students' engagement in learning activities outside the class and the community practice (Kim, Rueckert, Kim, & Seo 2013). Also, mobile phones have been documented as greatest inventions of human beings that have brought the world closer in terms of learning, attachment, accessibility, self expression and connectivity to each other. Nevertheless, it has been indicated through literatures that students are ahead of their parents and teachers when it comes to mobile applications therefore, prohibiting mobile phones in schools is not a practical and long term solution. Hence, stakeholders should collaborate with the government in establishing monitoring software, rules and policies as well as to educate the students the advantage and disadvantages of using mobile phones. These rules and regulations of mobile phones should align with the education policies that foster CBI implementation. Further studies on mobile phones usage should be done in other public and private secondary schools in Tanzania.

References

- Ally, M. (2009). Mobile learning transformation the delivering of education and training.
- Angello, C. (2015). Exploring the use of ICTs in learning and disseminating livestock husbandry knowledge to urban and peri-urban communities in Tanzania. *International Journal of Education and Development Using Information and Technology*. 11(1), 5-22.
- Aoki, K., & Downes, E. J. (2003). An analysis of young peoples' use of and attitudes towards cell phones. *Telematics and Informations*. (20), 349-364.
- Baron, N. S. (2010). The dark side of mobile phones. American University. USA.
- Buchegger, B. (2010). Using mobile phone in school: Handling opportunities and risks appropriately. Austrian Institute for Applied Telecommunications. Vienna.
- Chambo, F.F., Laizer, L.S., Nkansah-Gyekye, Y., & Ndume, V. (2013). Mobile learning model for Tanzanian secondary schools: Case study of Kilimanjaro Region. *Journal of Emerging Trends in Computing and Information Sciences*. 4 (9), 698-701.

- Davidson, L. Y. J., Richardson, M., & Jones, D. (2014). Teachers' perspective on using technology as an instructional tool. *Research in Higher Education Journal*. (24), 1-25.
- Ferry, B. (2009). Using mobile phones to enhance teachers learning in environmental education. Research online education papers 45-55. University of Wollongong.
- Ford, K. (2014). Competence- based education: History, Opportunities and Challenges. Briefing Paper .UMUC Center for innovation in learning and student success (CILSS).
- Funk, J. L. (2002). Global competetition between and within standards: The case of mobile phones. Great Britain. PALGRAVE.
- Gibbons, J. A., Galloway, D., Mollel, A., Mgoma, S., Pima, M., & Deogratias, E. (2017). Mobile phone use in two secondary schools in Tanzania. *Education and Information Technologies*. 1-20.
- Grimus, M., Ebner, M., & Holzinger, A. (2010). Mobile leraning as a chance to enhance education in developing countries- on the example of Ghana. Graz University of Technology.
- Grunwald Associates LLC. (2013). Living and learning with mobile devices: What parents think about mobile devices for early childhood and K-12 learning. SanFrancisco. CA.
- Hansson, P. O., & Jobe, W. (2014). Frontrunners in ICTL: Kenyan runners' improvement in training, informal learning and economic opportunities using smart phones. *International Journal of Education and Development Using Information and Technology*. 10 (4), 4-20.
- Hare, H. (2007). ICT in education in Tanzania. Survey of ICT and education in Africa: Tanzania Country Report. Tanzania
- Hartnell-Young, E., & Heym, N. (2008). How mobile phones help learning in secondary schools. University of Nottingham.
- Irina, A. (2012). A cellphone in the classroom: A friend or a foe. The CALL Triangle: Student, teacher and institution.
- Ismail T., Bokhare, S.F., & Azizan, S. N. (2013). Teaching via mobile phone: A case study on Malaysian teachers' technology acceptance and readiness. University Saints Malaysia.
- Kafyulilo, A. (2014). Acess, use and perceptions of teachers and students towards mobile phones as a tool for teaching and learning in Tanzania. *Education and Information Technologies*. 19 (1), 115-127.
- Kafyulilo, A. C., Moses, I & Rugambuka, B. I. (2012). The implementation of competence- based teaching approaches in Tanzania: The case of pre-service teachers at Morogoro teacher training college. *Universal Journal of Education and General Studies*. 1(11), 339-347.
- Kihwele, J. E., & Bali, T. A. L. (2013). The perceptions of Parents and students on the effectiveness of mobile phone use on students learning in Tanzania. *Journal of Education and Practice*. 4, 25

- Kim, D., Rueckert, D., Kim, D. J., & Seo, D. (2013). Students' perceptions and experiences of mobile learning. *Language Learning Technology*. 17 (3), 52-73.
- Krithika, M., & Vasantha, S. (2013). The mobile phone usage among teens and young adults of invading technology. *International Journal of Innovative Research in Science, Engineering and Technology*. 2 (12), 7259-7265.
- Mehdipour, Y., & Zerehkafi, H. (2013). Mobile learning for education: Benefits and challenges. *International Journal of Computational Engineering Research* 3 (6).
- Ministry of Education and Vocational Training (2007). Secondary education curriculum. Dar es Salaam. Author
- Mkonongwa, P. (2012). Quality education in Tanzanian context: *A paper presented to African federation of the head of schools conference Mlimani City*. Dar es Salaam. Ministry of Education and Vocational Training.
- Mosha, H. J. (2012). *Promoting critical knowledge, skills and qualifications for sustainable development in Africa: How to design and implement an effective response by education and training systems*. A case study of learning materials used to deliver knowledge and skills- or competence-based curriculum in Tanzania. Ougadougou, Burkina Faso
- Msuya, O. (2015). Using mobile phone in teaching and learning in secondary schools in Tanzania. *International Journal of Education and Research*, 5 (5), 201
- Mtega, W. P., Benard, R., Msungu, A. S., & Sanare, R. (2012). Using mobile phones for teaching and learning purposes in higher learning institutions: The case of Sokoine University of Agriculture in Tanzania. Proceeding and Report of the 5th UbuntuNet Alliance annual conference. 118-129.
- Muhanga, M. (2017). Get connected or get destroyed? Adolescent and mobile devices in urban settings in Tanzania. *International Journal of Advanced Research and Publications*. 1 (3), 62-68.
- Njoku, C. P.U. (2015). Information and communication technologies to raise quality of teaching and learning in higher education institutions. *International Journal of Education and Development Using Information and Technology*. 11(1) 122-147.
- Oller, R. (2012). The future of mobile learning. EDUCAUSE Center of Applied Research. Marlboro College Graduate School.
- Sedoyeka, E., & Gafufen, G. (2013). Computers in Tanzania secondary schools-Challenges and opportunities. *International Journal of Computing and ICT Research*. 7 (1), 22-32.
- Srivastava, L. (2004). Social and human considerations for a more mobile world. International Telecommunication Union. Seoul 4-5 ITU/MIC Workshop on shaping the future mobile information society. Background paper.

- United National Educational, Scientific and Cultural Organization (2015). Asia and the Pacific education for all 2015 region review: Final synthesis report. World Education Forum. Bangkok. Thailand.
- Ministry of Education and Vocational Training (2007). Secondary education curriculum. Dar es Salaam. Author
- Ministry of Education and Vocational Training. (2014). Education and training policy. Dar es Salaam. Author.
- Ministry of Education and Vocational Training. (2007). ICT policy for basic education. Dar es Salaam. Author.
- Ministry of Communications and Transport. (2003). National ICT Policy. Dar es Salaam. Author.
- Ministry of Works, Transport and Communications. (2016). National ICT policy. Dar es Salaam. Author.
- Tanzania Institute of Education. (2013). *Curriculum for ordinary secondary education in Tanzania*. Dar es Salaam. Ministry of Education and Vocational Training.
- Reena, B., & Sora, M. (2013). Perspective of emerging integrating technology (ICT) in learning and teaching. *International Journal of Information and Education Technology*. 3 (2), 282-285.
- Tiba, C. A. (2018). The ability of newly qualified teachers to integrate technology into their pedagogical practices. Thesis submitted in fulfillment of the requirements for degree of doctor of education in the faculty of education. Cape Peninsula. University of Technology.
- Wong, A. (2016). Student perceptions on a student response system formed by combining mobile phone and polling websites. *International Journal of Education and Development Using Information and Technology*. 12 (1), 144-153.